

# AIR TRAFFIC SERVICES

FEDERAL AVIATION ADMINISTRATION  
Fiscal Year 2004 Business Plan



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## INTRODUCTION

The purposes of this Air Traffic Services (ATS) line of business plan are two-fold: first, to demonstrate the ATS commitment to the FAA Flight Plan goals and objectives that were developed and refined with the input of organizations and individuals throughout the FAA; and second, to develop a “line of sight” from the FAA’s goals to the daily functions of ATS employees, as a reminder of how their actions on the job contribute to the success of the organization as a whole.

This performance-driven focus is not a familiar concept for ATS employees. ATS has developed annual performance targets and plans since the early 1990s. Its focus on measuring performance is motivated by an understanding of the importance of its primary functions to the flying public and its partners in the aviation industry, and a genuine commitment to a job well done. ATS executives and managers are held accountable for the outcomes contained in the Plan through individual performance standards and performance reviews. Performance targets are also used as criteria for determining Organizational Success Increases for many ATS employees.

The employees of Air Traffic Services (ATS), the largest of the Federal Aviation Administration’s (FAA) six primary lines of business, are on the front line every day. As such, they play a leading or significant contributing role in many of the FAA Flight Plan performance objectives, particularly in the areas of safety and system capacity, that most concern the flying public. In many ways ATS exemplifies the gold standard in air traffic systems and processes, and is a key player in communicating and exporting them worldwide, as outlined in the International Leadership goal. Likewise, ATS plays an integral role in several of the Organizational Excellence initiatives that are so critical to improving the financial efficiency and responsibility of the organization, as well achieving a healthy, safe, and secure work environment. While ATS plays a lead role in some objectives, in others it is not involved, or plays a secondary or supporting role to ARA, AVR, or one of the other FAA lines of business. This LOB Plan primarily addresses those agency objectives and initiatives in which ATS plays a leading or significant contributing role.

This plan begins with an overview of the ATS organization, and is followed by a section on each of the four Flight Plan goals, describing FAA Flight Plan goals and objectives, and ATS initiatives and performance

targets for 2004. Appendix A contains an explanation of performance measures for several of the safety and capacity goals and initiatives in which ATS is a key participant.

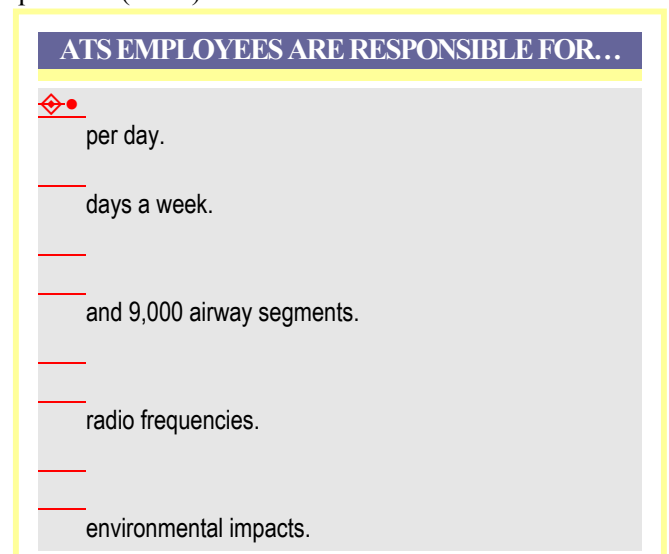
### The ATS Organization

The mission of the Federal Aviation Administration’s (FAA) Office of Air Traffic Services (ATS) is to:

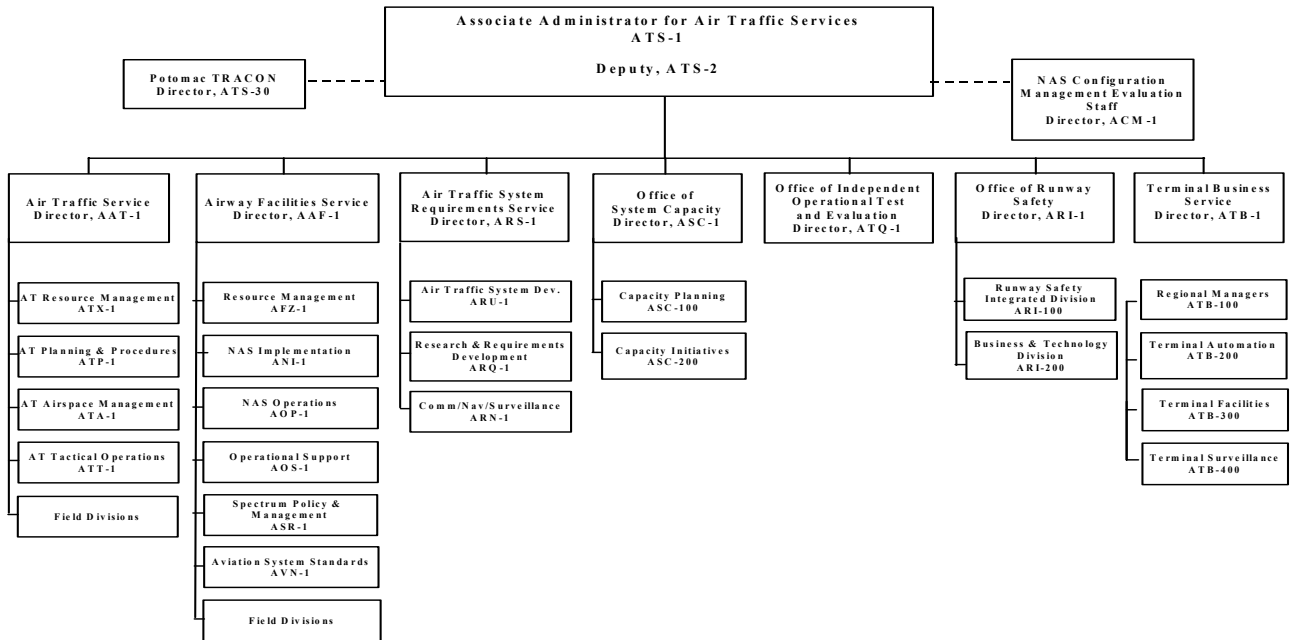
- Ensure the safe and efficient operation, maintenance, and use of the existing air transportation system;
- Maximize the usefulness of airspace resources; and
- Meet tomorrow’s challenges for increased system safety, capacity, and productivity.

The men and women of ATS work as air traffic controllers, engineers, systems specialists, pilots, flight inspection personnel, procedure development specialists, business managers, accountants, administrators, managers, secretaries, and support. ATS accounts for approximately 80 percent of the FAA workforce and receives approximately 60 percent of the total FAA budget.

ATS is comprised of the following organizations: Air Traffic (AAT), Airway Facilities (AAF), Air Traffic System Requirements (ARS), and Terminal Business (ATB) Service; and the Offices of System Capacity (ASC), Independent Operational Test and Evaluation (ATQ), and Runway Safety (ARI). The NAS Configuration Management Evaluation Staff (ACM) reports to both the Associate Administrator for Air Traffic Services (ATS) and the Associate Administrator for Research and Acquisition (ARA).



The organization chart for ATS is shown below.



# INCREASED SAFETY



## OVERVIEW

ATS's core responsibility is to ensure the safe day-to-day operation of the NAS. ATS is working with industry representatives to aggressively focus on actions to reduce accidents and incidents in which safety is compromised, and plays a lead or significant supporting role in achieving most of the safety initiatives in the FAA Flight Plan.

ATS also promotes system safety through the implementation, maintenance and modernization of the NAS air traffic infrastructure. The infrastructure includes equipment, information systems, and facilities and their interfaces such as power and telecommunications services.

The safety objectives and initiatives in the flight plan reflect not only the FAA's commitment to maintaining its commendable safety record, but also its efforts to invest in systems and procedures that will yield the most additional benefit. The FAA is making a special commitment in Alaska, where heavy reliance on air transportation in a difficult operating environment has led to an unacceptably high aviation accident rate.

This Office contributes to the following strategic Safety Objectives outlined in the FAA 2004-2008 Flight Plan:

### Safety Objectives

1. Reduce the commercial airline fatal accident rate
2. Reduce the number of fatal accidents in General Aviation
3. Reduce accident rates in Alaska
4. Reduce the risk of runway incursions
5. Reduce cabin injuries caused by turbulence
6. Measure the safety of the United States civil aviation with a composite index
7. Prevent commercial space launch accidents
8. Complete implementation of a Safety Management System for FAA's ATS

A more detailed description of each Objective, including its supporting Initiatives and Performance Targets follows.

# FLIGHT PLAN OBJECTIVE 1: REDUCE THE COMMERCIAL AIRLINE FATAL ACCIDENT RATE

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## FY04 PERFORMANCE TARGETS

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Reduce airline fatal accident rate to 0.028.

### Flight Plan Initiative 1. (ATS Leads)

Set-up the Required Navigational Performance (RNP) program office.

#### ATS Activity

Established the Required Navigation Performance (RNP) Division, ATP-500, in April 2003. ATP-500 is responsible for implementing RNP as part of the FAA's effort to transition the National Airspace System (NAS) to a performance-based navigation system. The key feature of RNP is that it specifies the level of avionics capability required for a procedure or airspace, but does not specify a required technology. This provides flexibility to the user and enables maximum benefit for a given level of user participation. Use of RNP will permit greater flexibility and standardize airspace performance requirements. An RNP steering committee has been formed made up of Air Traffic Planning and Procedures (ATP), Flight Standards Service (AFS), Regulation and Aircraft Certification Service (AIR), Aviation System Standards (AVN), and Aviation Policy, Planning, and Environment (AEP). ATP-500 will work collaboratively with the FAA offices indicated above and the user community to design and implement RNP procedures that provide the most benefit to the agency and the aviation community.

#### Performance Target:

- Associates complete review and sign RNP charter by the end of Q3 FY2004.
- Increase staff of RNP Division with two additional air traffic control specialists (ATCS) by the end of Q2 and one additional ATCS by the end of Q4 FY2004. These specialist positions will be used to coordinate the implementation of RNP with participation in user group meetings, agency forums, and international harmonization working groups for the approach, terminal, and enroute domains.

### Flight Plan Initiative 2. (ATS Leads)

Implement the RNP road map, including Local Area Augmentation System (LAAS), Wide Area Augmentation System (WAAS), and Precision Approach Implementation (PAI).

#### ATS Activity

- A. The FAA Administrator signed the Roadmap for Performance-Based Navigation on July 22, 2003. The Roadmap defines operational goals and concepts, identifies steps and milestones to achieve those goals, presents key policy and technical issues needing to be addressed, and outlines critical decisions needed to be made along the way. The operational goal of the Roadmap is to provide better access and safety at major airports with terrain/obstacles using performance-based operational criteria that is not limited to a specific supporting navigation system. For approaches, criteria and operational guidance will be developed for RNP approaches, LPV approaches, LNAV/VNAV and VNAV approaches. The specific procedures implemented at any given airport depend on the operational requirements and the available navigation infrastructure. For certain sites, opportunities exist for low RNP values and for approach and missed-approach paths that are not straight in and straight out. Both LAAS and WAAS will support these operations. Also see Objective 3, Initiative 1.

#### Performance Target:

- Develop mature criteria and guidance materials in cooperation with industry by the end of Q2 FY2004.
- Authorize new RNP instrument approach procedures using other than straight-in-path segments by Q2 FY2004.
- Finalize requirements for HOST build 1.5 by Q4 2004.

### Flight Plan Initiative 3. (ATS Support)

Continue implementing Commercial Aviation Safety Team (CAST) initiatives and pursuing joint identification and analysis of safety issues within CAST.

#### ATS Activity

- A. CAST is a joint Industry and FAA team focused on improving aviation safety. This includes safety issues arising from areas such as aircraft equipment, ground equipment, training deficiencies and procedural issues. As needed, ATP will assign programmatic issues to appropriate offices and take necessary actions to rectify safety issues identified by the team.
- B. ATP will assist AVN in identifying the remaining GPS procedures that need to be renamed to RNAV/RNP and help prioritize where the changes are most needed. Additionally, since CAST is shifting its focus from addressing recurring accident-based risk to identification of future and emerging risk to include US and worldwide accident rates, ATP will publish information as needed to publicize current and evolving procedures to mitigate these emerging risks. As future NAS equipment requirements are identified to mitigate these emerging risks, ATP will assist in the identification of mission needs and supporting procedures.

*Performance Target:*

- *Publish air traffic bulletins on a quarterly schedule and publish additional special issues as needed.*
- *Develop and publish air traffic controller procedures during February and August of FY2004.*
- *Provide notification on pertinent issues through GENOT, NOTICE, and NOTAMs on an as-needed basis to ensure immediate publication.*
- *Support CAST process to obtain “G” level approval of Turbulence Joint Safety Implementation Team (JSIT) safety enhancements.*
- *Commission 21 CAST PAPIs and 6 CAST DME’s by Q4 FY2004.*

#### **Flight Plan Initiative 4. (ATS)**

Develop and implement airport design standards, surface movement strategies, surface movement procedures, infrastructure, and training that enhance the efficiency of aircraft movement and reduce the risk of commercial aircraft collisions.

#### **ATS Activity**

- A. Through simulation data and runway incursion analysis/simulation/modeling, identify decision strategies for the viability of perimeter taxiways. Ensure participation in applicable runway safety workgroups and support the goals and objectives outlined in the Runway Safety Blueprint for 2002-2004 to improve awareness efforts and procedural compliance.

*Performance Target:*

- *Develop decision strategies for the viability of perimeter taxiways by Q3 FY2004.*

## FLIGHT PLAN OBJECTIVE 2: REDUCE THE NUMBER OF FATAL ACCIDENTS IN GENERAL AVIATION

ATS works in collaboration to identify, validate, and seek solutions to safety related shortfalls within the NAS and to ensure that they are addressed in an expeditious manner. By addressing operational shortfalls and

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### FY04 PERFORMANCE TARGETS

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Reduce the number of general aviation and nonscheduled Part 135 fatal accidents to 349.

#### Flight Plan Initiative 1. (ATS Leads)

Provide Visual Flight Rule (VFR) pilots with Instrument Flight Rule (IFR)-like environments by achieving full operational capability of WAAS and delivery of Automatic Dependent Surveillance-Broadcast (ADS-B/TIS-B) at key sites.

#### ATS Activity

A. ATS provides on-going support of the Safe Flight 21 and Capstone Programs through identification of operational requirements and changes to Air Traffic procedures. Among other outcomes, these programs will improve aviation safety through the development of system standards for ADS-B and WAAS in terminal, en route, and oceanic airspace, as well as on the airport surface. The use of ADS-B technology allows aircraft to fly at their optimum altitude, speed, and routing, resulting in more efficient traffic flows while maintaining a high level of safety. Information is provided directly to the pilot, through high volume transmission and high fidelity displays, of all traffic in the airspace that the receiving aircraft is in, allowing the pilot to make decisions and flight route requests on based on actual air traffic information.

#### Performance Target:

- Details concerning specific outcomes, performance targets and associated dates for SF-21 programs are contained in the ARA Business Plan.
- ATS will recommend changes to implementation procedures for using call-signs as part of traffic advisory phraseology by January 2004.

#### Flight Plan Initiative 2. (ATS Leads)

Provide text and graphical data (for example weather, wind shear alerts, temporary flight restrictions, and

strategically implementing research and development activities, ATS carries out the agency's vision and management plans to increase safety while resolving tactical issues that jeopardize safety.

notices to airmen) to the cockpit through flight information services broadcast (FIS-B) on an ADS-B link.

#### ATS Activity

A. Recently developed software allows for the displaying of temporary flight restrictions (TFRs) graphically in flight service stations and to the public. These graphics are being made available via the Internet to those who have the appropriate software to load the TFR products on moving-map/data link equipment. Additional support of the initiative is provided through the development of Aeronautical Information Management (AIM) initiatives which include: NOTAMs Multi-Domain Solution: Completion of mission analysis, requirements development and pre investment analysis activities. NAIMES/NASR: Completion of updated mission analysis and requirements to baseline the modernization and integration of these systems in the AIM service area.

#### Performance Target:

- Replace the manual process of disseminating Temporary Flight Restriction information with a fully automated process by Q2 FY2004.
- NOTAMs Multi-Domain Solution: Achieve Information Assurance Readiness Review (IARR) status by Q2 FY2004.
- Instrument Approach Procedure Automation: Support AVN in completing the mission needs statement and initial requirements document by Q1 FY2004.
- NAS Adaptation System Enhancement: Achieve IARR status by Q1 FY2004.
- NAIMES/NASR: Achieve integration of program's mission need and requirements into the AIM by Q4 FY2004.
- CCCS requirements definition (Capstone) completed Q2 FY2004 (certification document).
- ATOP IOC at Oakland Q3 FY2004 (IOC declaration).

- NOTAMS POC completion by Q1 FY2004 (POC decision).
- OASIS IOC at 7 sites by Q4 FY2004 (IOC decision).

### Flight Plan Initiative 3. (ATS Leads)

Increase situational awareness by improving the capabilities of small aircraft with integrated displays, WAAS, data-link and ADS-B/TIS-B aircraft position.

#### ATS Activity

- Continue prototype development and validation of ADS-B technology in the Capstone Project. Finalize requirements for the implementation of additional Ground Based Transmitters in the Bethel area and assist in establishing approach control services utilizing the Fairbanks TRACON. Establish certification and training criteria for AF maintenance personnel.

#### Performance Target:

- Deploy 7 additional Ground Based Transmitters (Capstone) by Q2 FY2004.
- Complete modifications to MEARTS to handle ADS-B and TIS-B messages (Capstone) by Q4 FY2004.

### Flight Plan Initiative 4. (ATS Leads)

Publish RNP/RNAV approaches.

#### ATS Activity

The FAA's navigation and landing systems are evolving from ground-based navigation aids to a satellite-based system. The system, eventually consisting of Global Positioning, Wide Area Augmentation, and Local Area Augmentation Systems, will provide an additional level of accuracy to vertically guided approaches at selected airports. ATS will design and publish instrument approach procedures that encompass the full utilization of ground, aircraft, and space-based navigation systems; improve safety; increase capacity, and enhance operational flexibility through the activities listed below:

- Publish lateral/vertical approach procedures and Area Navigation (RNAV) departure procedures and RNAV standard terminal arrival routes.

Provide vertical guidance augmentation to National Transportation Safety Board designated Part 139 runways.

Support FAA's Architecture and National Airspace Redesign initiative and the CAST Plan.

Convert privately developed "convertible special" instrument approach procedures to approach procedures available for public use.

#### Performance Target:

- Increase the number of vertically guided approaches over the FY 1999 baseline (120 additional vertically guided approaches to achieve a cumulative total of 1,636). AVN target is to publish 120 vertically guided procedures by September 30, 2004. Procedures will be published each charting cycle toward this goal.

### Flight Plan Initiative 5. (ATS)

Develop and implement airport design standards, surface movement strategies, surface movement procedures, infrastructure, and training to enhance the efficiency of aircraft movement and reduce collision risk.

#### ATS Activity

- Conduct a system evaluation to focus on technical performance, pilot feedback, and runway incursion reduction benefit for the ground marker (low power beacon) installed September 2003 at Concord Buchanan Field Airport, CA.

#### Performance Target:

- Complete a draft revision to the airport marking Advisory Circular to implement the FY2003 taxiway hold line/center line marking evaluation at T.F. Green Airport by Q4 FY2004.

### Flight Plan Initiative 6. (UAV)

Develop policies, and approval processes to enable operations of unmanned aerial vehicles

#### ATS Activity

- As members of the ACCESS 5 JSRA, ATS will participate in the development, execution and analysis of simulations and demonstrations of UAV flight within the NAS to identify requisite changes and additions to air traffic policies and procedures necessary to ensure safe, orderly, and expeditious operations.

#### Performance Target:

- Recommend changes to current policies and procedures by Q4 FY2004.
- Facilitate and gain approval for a process to provide warehoused equipment to airports in order to provide/enhance customer service.

## FLIGHT PLAN OBJECTIVE 3: REDUCE ACCIDENTS IN ALASKA

Through the "Capstone" initiative, the FAA is working with air carriers in the area of Bethel, Alaska to improve aviation safety while offering greater efficiencies to operators. "Capstone" will concentrate on the evaluation and implementation of three operational enhancements

### FY04 PERFORMANCE TARGETS

Reduce accidents in Alaska for general aviation and all part 135 operations to no more than 125 per year.

#### Flight Plan Initiative 1. (ATS Supports)

Achieve full operational capability of WAAS.

##### ATS Activity

Aircraft can use GPS/WAAS technology to gain safe access to airspace and airports not available with current navigation systems. A fully operational WAAS capability will enable use of a single navigation system throughout all phases of flight, and new navigation applications such as RNAV/RNP routes and LPV approaches. FY2004 activities related to WAAS implementation include:

- A. Begin WAAS signal-in-space improvements by developing installation plans for additional WAAS ground reference stations in Alaska and planning for an additional WAAS GEO.
- B. Develop and flight check special IFR approach/departure procedures in Alaska
- C. Determine RNP equivalence for TSO-145a/146a GPS/WAAS avionics.

##### Performance Target:

- Complete site-surveys for 3 WAAS ground reference stations in Alaska by September 2004

#### Flight Plan Initiative 2. (ATS Supports)

Expand the Capstone Program through a three-phase approach starting with Bethel, Southeast Alaska, and finally the entire state.

##### ATS Activity

- A. Capstone is a technology focused safety program in Alaska that seeks near-term safety and efficiency gains in aviation by accelerating implementation and use of modern technology. It links multiple programs and initiatives under a common umbrella for planning, coordination, focus, and direction. Capstone develops capabilities and requirements

in the region: Weather and Other Information in the Cockpit, Affordable Means to Reduce "Controlled Flight Into Terrain" (CFIT), and Enhanced Capability to See and Avoid Adjacent Traffic.

jointly with FAA, the Alaska community and aviation industry in a manner consistent with future NAS plans and concepts, and implements in a manner leading to self-equipage. ARC is the lead organization on this initiative, and ATS plays a supporting role.

##### Performance Target:

- Five (5) Ground Based Transceivers (GBTs) commissioned for ADS-B ATC surveillance services (en route and ATCT), and FIS-B and operator flight monitoring services by September 2004
- Publish 7110.65 ADS-B changes by September 2004.
- Implement modifications to MEARTS for ADS-B MOPS compliance by September 2004.
- Completion of Alaska statewide Strategy Plan by September 2004.
- Install and commission new remote communications air ground stations to enhance pilot controller communications in SE Alaska.
- By September 2004, complete initial procurement and testing of the MOPS compliant GBT to enable initial installation during the first quarter of FY 05.

#### Flight Plan Initiative 3. (ATS Supports)

Expand the use of weather cameras and explore alternative technologies to provide similar data and real time images to air carriers and general aviation pilots.

##### ATS Activity

- A. Conduct users need analysis to consider cameras and alternatives to provide similar data and real time images to Air Carriers and General Aviation Pilots.

##### Performance Target:

- Complete Users Needs Analysis by Q3 FY2004.
- Complete Requirements and Policy Statements by the end of Q4 FY2004.

## FLIGHT PLAN OBJECTIVE 4: REDUCE THE RISK OF RUNWAY INCURSIONS

### FY04 PERFORMANCE TARGETS

Reduce the number of most severe (Category A and B) runway incursions at towered airports to 40 or less.

Challenges	Mitigation Strategies
1a. Refocusing the priority of some LOB evaluation staff resources to identify runway incursion risk. 1b. Incorporate evaluation results and analysis into LOB correctional activities.	1. Continuously evaluate, analyze, test, and improve procedures, training and certification.
2a. Develop algorithms that reliably reflect risk inherent in runway incursions. 2b. Refine algorithms based on results of validation efforts.	2. Use advanced modeling and simulation tools to design and develop new equipment, procedures, and training.

#### Flight Plan Initiative 1. (ATS Leads)

Improve training, procedures, evaluation, analysis, testing, and certification to reduce the risk of runway incursions resulting from errors by pilots, air traffic controllers, and airport authorized pedestrians, vehicle operators, tug operators, and mechanics conducting aircraft taxi operations.

##### ATS Activity

To achieve the desired risk reduction and mitigate risks resulting from errors, FAA will develop and publicize current and new procedures and conduct focused evaluation of operational performance, procedures, and training as needed in the following areas:

- Runway entries or crossings in front of landing and departing aircraft;
- Landings or departures on occupied runways; and
- Aircraft operations on closed runways.

##### Performance Target:

- Conduct evaluation and analysis, and commence corrective actions, as appropriate, for at least 60 air traffic control towers focused on reducing risk from Operational Errors (OE) including OE Runway Incursions by Q4 FY2004.
- Reduce Operational Error (OE)/ Operational Deviation (OD) runway incursions resulting from ATC Controller actions (or inactions) from a FY 2001 – FY 2003 baseline of 86 to 82 or less by the end of Q4 FY2004.

- Complete evaluations for at least 20 air traffic control towers by end of Q2 FY2004.

#### Flight Plan Initiative 2. (ATS Leads)

Finish installing Airport Surface Detection Equipment (ASDE-X) and retrofit of ASDE-X equipment capability into selected Airport Movement Area Safety System (AMASS) installations.

##### ATS Activity

- Provide automatic conflict alerts (both aural and text) to assist tower controllers in reducing runway accidents. These alerts include possible conflicts of aircraft on the runway and on the close approach path with other aircraft /vehicles/obstacles on or near the runway. These outcomes will be achieved through deployment of ASDE-3X with mutilation, AMASS, and ASDE-X.

##### Performance Target:

PROGRAM	MILESTONE	FY-04
ASDE-X	ORD	4
ASDE-3X W/MULTILATERATION	ORD	1
AMASS	ORD	2

- Airport Surface Detection Equipment, Model X (ASDE-X) Commission first site, Milwaukee, Wisconsin- by the end of the Q1 FY2004.

- *Airport Movement and Safety System (AMASS)- Final airport of 34 to be commissioned at Houston Intercontinental (IAH) December 2003.*

### Flight Plan Initiative 3. (ATS Leads)

Finish developing, testing, evaluating, and deploying runway status lights at selected AMASS and ASDE-X Airports.

#### ATS Activity

- A. Description/Activities: (Needs input from ARA Business Plan)

*Performance Target:*

- *Complete Runway Status Lights Phase 2 Shadow Operations at Lindbergh Field (SAN) in San Diego, CA by the end of Q3 FY2004.*

### Flight Plan Initiative 4. (ATS Supports)

Develop a proof of concept that leads to a prototype ground-movement safety infrastructure to provide direct warning capability to pilots, drivers, and controllers.

#### ATS Activity

- A. Conduct an integrated assessment of emergent runway safety technologies and conduct simulation analyses to assess effectiveness, interoperability and level of readiness for operational transition to a NAS ground movement safety infrastructure. ARA is the lead organization for this initiative.

*Performance Target: Develop an introductory Runway Incursion technology assessment report based on initial analyses of emergent technology effectiveness and interoperability by the Q4 FY2004.*

### Flight Plan Initiative 5. (ATS)

Evaluate the effectiveness of airport design simulations and improve operational performance of future runway and taxiway projects.

#### ATS Activity

- A. (Info needed from ARP Business Plan)

*Performance Target: Construct an Atlanta Design and Operational Use concept by the end of Q4 FY2004*

### Flight Plan Initiative 6. (ATS Leads)

Evaluate the effectiveness of air traffic tower simulation training to help air traffic controllers recognize errors, take corrective action, and communicate with pilots.

#### ATS Activity

- A. Construct an airport visual graphical database, through a guide specification, for Ted Stevens Anchorage International Airport that can be used within air traffic control tower simulators. Conduct an air traffic control tower simulation using the Ted Stevens Anchorage International Airport Visual Graphical Database and Ted Stevens Anchorage International Air Traffic Controllers, that will measure the operational safety and efficiency of new airport taxiway systems.

*Performance Target:*

- *Complete the Guide Specification by Q2 FY2004.*
- *Complete the Airport Visual Graphical Database by early Q4 FY2004.*
- *Complete Air Traffic Control Tower Simulation by end of Q4 FY2004.*

### Flight Plan Initiative 7. (ATS Leads)

Finish developing, testing, evaluating, and deploying a model for categorizing runway incursion risk. *(Is this an ATS (ARI) specific initiative)*

#### ATS Activity

Begin development of a Runway Incursion Severity Categorization (RISC) Model. Four activities will be completed to support this activity.

- A. Develop list of scenarios that define situations that result in runway incursions
- B. Develop list of factors that affect the variability of the outcome of runway incursions
- C. Develop algorithms that assign a severity rating to runway incursions.
- D. Evaluate the performance of the model with six months of runway incursion data.

*Performance Target: Complete the four activities and present a demonstration briefing of the model for feedback by the Q4 FY2004.*

## FLIGHT PLAN OBJECTIVE 5: REDUCE CABIN INJURIES CAUSED BY TURBULENCE

### FY04 PERFORMANCE TARGETS

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- Reduce serious injuries from turbulence accidents by 30% by FY 2008 (from the 1996-2000 average of 18 serious injuries per year to no more than 12).
- Reduce serious injuries from turbulence accidents to no more than 18 per Year.

### Flight Plan Initiative 1. (ATS Leads)

Improve dissemination of pilot reports and timeliness of weather forecasts to identify air turbulence areas.

#### *ATS Activity*

- A. The Air Transport Association will circulate a letter to encourage airline dispatchers to capture more PIREPs, and layout the benefits of more frequent reports. NOTAMS and OASIS provide turbulence information and dissemination of pilot reports.

#### *Performance Target:*

- *Produce a roadmap to substantially upgrade in-site meteorological reports including humidity, turbulence, icing and expansion to lower flying operators for better coverage by March 2004*
- *NOTAMS POC completion Q1 FY2004.*
- *OASIS IOC at 7 sites Q4 FY2004.*

## FLIGHT PLAN OBJECTIVE 6: ENHANCE THE SAFETY OF FAA'S AIR TRAFFIC SYSTEMS

### FY04 PERFORMANCE TARGETS

- Reduce Operational Error (OE)/ Operational Deviation and (OD) runway incursions resulting from ATC Controller actions from a FY 2001 – FY 2003 baseline of 85 to 81 or less.
- Reduce the number of the highest severity (Category A & B) operational errors to no more than 629.

#### Flight Plan Initiative 1. (ATS Leads)

Utilize the JANUS technique, developed by the Civil Aerospace Medical Institute, to better understand the causal factors of operational errors and to facilitate development of appropriate training.

##### ATS Activity

- A. This effort will conduct applied human factors research for air traffic controllers to optimize human performance and minimize operational errors.

##### Performance Target:

- *Complete initial longitudinal studies on the JANUS technique involving operational (facility feedback) and scientific validation (temporal markers) studies by Q4 FY2004.*
- *Deliver e-JANUS web-based operational error data collection tool and demonstrate it at one ATC facility by Q4 FY2004*

#### Flight Plan Initiative 2. (ATS Leads)

Develop and implement Performance Enhancement Based Training.

##### ATS Activity

- A. National Air Traffic Professionalism (NATPRO) is a new training approach currently undergoing beta testing at the Miami Air Route Traffic Control Center designed to improve concentration and awareness. This project utilizes an interactive computer based cognitive skills program to facilitate skill building and increasing controller awareness of mental skills affecting performance. Once verified, training will be expanded to domestic air route traffic control centers.

*Performance Target: NATPRO training is planned for domestic air route traffic control centers in FY2004.*

#### Flight Plan Initiative 3. (ATS Leads)

Conduct Airspace Complexity Studies at selected, high-incidence facilities to identify measures of airspace complexity and develop recommendations to reduce errors.

##### ATS Activity

- A. CAMI will analyze the relationship of airspace characteristics with Operational Errors. Identify measures of airspace complexity. Develop findings and recommendations.

##### Performance Target:

- *Complete Airspace Complexity Analysis in one center in FY2004.*

#### Flight Plan Initiative 4. (ATS Leads)

Implement Safety Management System (SMS) using a phased approach with the initial implementation focusing on targeted NAS changes.

Challenges	Mitigation Strategies
1. Resources required for SMS implementation	1. Upon JRC approval, work with sponsoring LOBs to negotiate for needed resources
2. Agency-wide support during SMS implementation	2. Continue with a wide range of communication to all affected stakeholders

#### ATS Activity

- A. Implementing SMS for air traffic service provision will allow FAA to verify, at a corporate level, that all safety significant changes to the NAS have been assessed for safety risk and that identified safety risks have been mitigated and/or lowered to an acceptable level prior to inclusion into the NAS.

##### *Performance Target:*

- *Develop and provide SMS training to NAS change agents and managers/executives for targeted NAS changes by June 30, 2004.*
- *Provide draft safety cases for multiple target NAS changes by August 31, 2004. Development of safety cases, by NAS change agents, for targeted NAS changes using the SMS standardized process by June 30, 2005.*
- *Develop and implement a process to document, at an FAA-wide level, all changes made to the NAS. Data to be provided by all NAS change agents. An interim target is to complete initial implementation of the process by April 30, 2004.*

#### Flight Plan Initiative 5. (ATS Leads)

Introduce Safety Management System (SMS) processes FAA-wide to assess risk and to monitor effectiveness of risk-mitigation strategies.

#### ATS Activity

- A. Implementing the Safety Management System (SMS) for air traffic service provision will allow FAA to verify, at a corporate level, that all safety significant changes to the NAS have been assessed for safety risk and that identified safety risks have been mitigated and/or lowered to an acceptable level prior to inclusion into the NAS.

##### *Performance Target:*

- *Develop and disseminate SMS manual to potential NAS change agents for their use in developing safety cases by September 30, 2004. An interim target is to provide a manual to targeted NAS change agents by April 30, 2004.*
- *Develop and provide interim SMS training to select NAS change agents and managers/executives who approve the incorporation of NAS changes by July 31, 2004.*
- *Develop and provide complete SMS training to all potential NAS change agents and managers/executives who approve the*

*incorporation of NAS changes by September 2005.*

#### Flight Plan Initiative 6. (ATS Leads)

Expand the collection, consolidation, and analysis of safety data to enhance reporting, and assessment.

#### ATS Activity

- A. Complete assessment of currently collected internal and external safety data related to the air traffic service provision. Based upon this review, propose and implement collection of additional data required to increase promotion of safety-enhancing efforts related to air traffic service provision.

##### *Performance Target:*

- *Complete assessment of all currently collected safety data related to air traffic service provision by August 30, 2004*
- *Propose and implement the collection of additional safety data required to increase the ability to promote safety-enhancing efforts related to air traffic service provision by September 30, 2006. An interim goal is to develop an initial proposal of additional safety data requirements by September 30, 2004.*

#### Flight Plan Initiative 7. (ATS Leads)

Expand the Safety Management System (SMS) to include all safety-significant changes to the NAS.

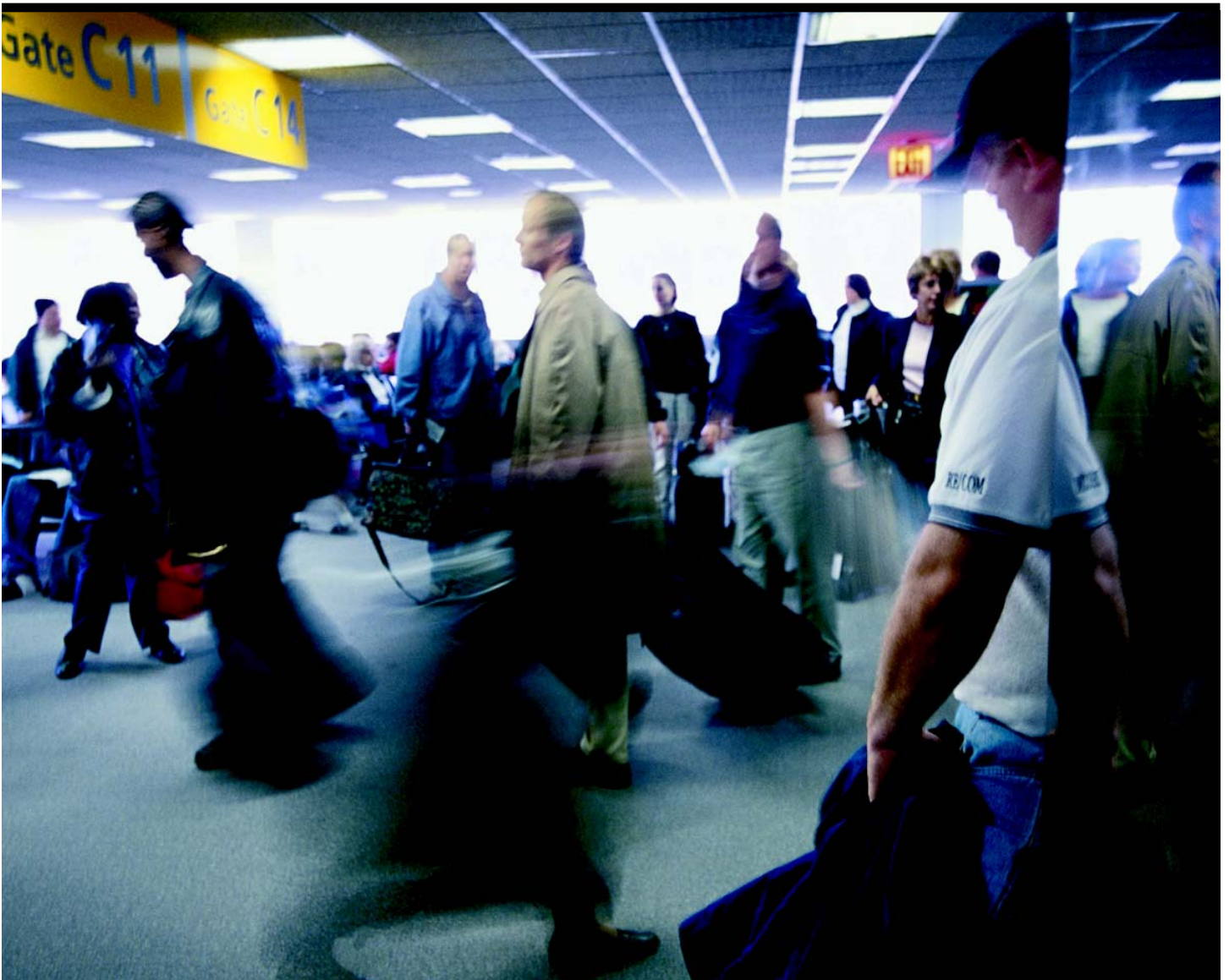
#### ATS Activity

- A. Implementing the Safety Management System (SMS) for air traffic service provision will allow FAA to verify, at a corporate level, that all safety significant changes to the NAS have been assessed for safety risk and that identified safety risks have been mitigated and/or lowered to an acceptable level prior to inclusion into the NAS.

##### *Performance Target:*

- *Development of safety cases, by NAS change agents, for all safety-related changes using the SMS standardized process by September 30, 2006.*
- *An interim target is to complete draft safety cases for multiple target NAS changes by August 30, 2004.*

# GREATER CAPACITY



## OVERVIEW

A key component of the FAA's efforts to improve system capacity is the Operational Evolution Plan (OEP), a ten-year strategic plan developed in partnership with the aviation industry and other Federal agencies. Among the strategies for increasing capacity in the OEP are the modernization of on-ground and in-plane equipment, adoption of advanced routing procedures, and installation of state-of the-art weather radar and navigational aids.

The OEP focuses on 35 of the largest and most congested airports in the U.S. Consistent with the FAA's focus on the most congested airports for solutions to reducing delay and increasing capacity, the performance targets for many of the Flight Plan capacity goals apply to the 35 OEP airports. Narrowing the focus even further, one of the capacity objectives addresses capacity in the metropolitan areas that most contribute to flight delays.

ATS employs tactical approaches for accomplishing capacity objectives, by operating and maintaining the NAS every hour of every day, and strategic approaches, by working with other FAA organizations in pursuit of new capacity-enhancing approaches. The tactical capacity approaches should not be underestimated. While it is tempting to continually focus on innovation, the majority of ATS resources are devoted to sustaining and continuing to operate the system consistently and reliably.

This Office contributes to the following strategic Greater Capacity Objectives outlined in the FAA 2004-2008 Flight Plan:

### Greater Capacity Objectives

1. Increase airport capacity to meet projected demand.
2. Make air traffic flow over land and sea more efficient.
3. Increase or improve airspace capacity in the eight major metropolitan areas and corridors that most affect total system delay: New York, Philadelphia, Boston, Chicago, Washington/Baltimore, Atlanta, Los Angeles Basin, and San Francisco.
4. Increase on-time performance of scheduled carriers.
5. Address environmental issues associated with capacity enhancements.

A more detailed description of each Objective, including its supporting Initiatives and Performance Targets follows.

<b>ATS PERFORMANCE GOALS--CAPACITY</b>		<b>FY04 Target</b>
<b>On-Time Arrival-</b> Through 2008, increase the percent of all flights arriving within 15 minutes of schedule at 35 OEP airports by 7%, as measured from the three-year FY2000-2002 baseline.		82.10%
<b>Airport Arrival Capacity at the 35 OEP Airports-</b> Achieve an increase in the Airport Arrival Capacity at the 35 OEP airports from 50,550 arrivals per day from the YR2000-2002 baseline to at least 53,600 per day by 2008.		51,332
<b>Airport Arrival Capacity at the 8 Major Metro Areas-</b> Achieve an increase in the Airport Arrival Capacity for the 8 major metropolitan areas from 21,290 arrivals per day from the 2000-2002 baseline to at least 22,000 per day by 2008.		21,290
<b>Airport Arrival Efficiency Rate-</b> Achieve an airport arrival efficiency rate of 96% at the 35 OEP airports by 2008.		95.67%

# FLIGHT PLAN OBJECTIVE 1: INCREASE AIRPORT CAPACITY TO MEET PROJECTED DEMAND

## FY04 PERFORMANCE TARGETS

- Achieve an Airport Arrival Efficiency Rate of 95.67% at the 35 OEP airports.
- Achieve an Airport Arrival Capacity at the 35 OEP airports in excess of 51,332 per day.
- Open two new runways, while increasing the Annual Service Volume (ASV) of the 35 OEP Airports by at least 1%.
- Sustain Operational Availability at 99% for the reportable facilities that support the 35 OEP airports.

### Flight Plan Initiative 1.(ATS Supports)

Complete an evaluation by December 2003 of the 35 Operational Evolution Plan (OEP) airports to determine whether they will meet future demand levels.

#### ATS Activity

- A. ATS is a support organization on this initiative. ATA will contribute to this initiative by coordinating airspace studies associated with 35 OEP airports. Airspace studies for DTW, CLE, EWR, JFK, PHL, LGA, ORD, MIA, MCO, SFO, PHX, LAS, LAX, IAH, CVG, STL, SLC have been completed.

#### Performance Target:

- Arrange coordination meeting with ASC and ARP by late 2003.
- Determine if there is an automation tool that can simulate wind data by Q2 FY2004.

### Flight Plan Initiative 2.(ATS Leads)

Establish priorities for infrastructure investments to maintain existing capacity in a cost-effective manner.

#### ATS Activity

- A. This initiative will establish priorities for NAS infrastructure investments using rank-ordered investment recommendations to management for approval. Facilities and Equipment (F&E), Functional Work Groups (FWG) prioritize funding for programs that support sustaining the NAS infrastructure. These priorities are based on specific direction given by FAA management.

#### Performance Target:

- Apply the Corporate Work Plan (CWP) program to establish priorities for the implementation of

systems in the FAA regions by the end of Q1 FY2004.

- Prioritize implementation schedule through maintenance of CWP by Q1 FY2004.
- Provide CIP decision-makers with infrastructure component operating costs by Q4 FY2004.
- Provide overview of regional infrastructure upgrades, as needed, by Q4 FY2004.
- Reduce contract support within telecommunications program to realize a 5% decrease in the annual telecommunications budget.

### Flight Plan Initiative 3.(ATS Leads)

Establish financial benchmarks to evaluate whether initiatives are successful.

#### ATS Activity

- A. Identify best practices in developing standards for evaluating and prioritizing investment decisions. Work with APO and MITRE to develop guidance in developing financial benchmarks.

*Performance Target: Identify and define data requirements and best practices by Q4 FY2004.*

### Flight Plan Initiative 4.(ATS Supports)

Create an intra-agency team to coordinate standards, procedures, and policies to improve airport capacity.

#### ATS Activity

- A. ATS will contribute to this initiative by documenting airspace changes that can be applied at key airports to enhance airport capacity. This document will include specific description of best practices for designing terminal and transition airspace that will maximize airport throughput.

#### Performance Target:

- Document airspace design best practices by mid 2004

### Flight Plan Initiative 5.(ATS Leads)

Improve the quality of updates to airport air traffic acceptance rates to ensure the most efficient use of existing capacity.

### ATS Activity

- A. Field facilities are required to input the airport acceptance rate (AAR) and the airport traffic count into the Airport Metrics Page on the Operational Information System (OIS). The OIS is a web-based system maintained by the ATCSCC. AARs are required to be input each day, reflected in hourly increments. Traffic counts are input on an hourly basis. Users have real-time access to determine if the AAR is reflective of current conditions and if the airport is performing at capacity. This process enables tracking of consistently over or under performing airports that will allow for immediate follow-up. Additionally, research and development is conducted for arrivals to Philadelphia International Airport (PHL) utilizing arrival times generated by the Traffic Management Advisor (TMA) across ARTCC boundaries. The times using TMA are more accurate and provide a better method of planning arrival traffic to PHL by Cleveland, New York, Boston, and Washington ARTCCs.

#### *Performance Target:*

- Complete the update of the current Airport Capacity Benchmark Study by Q3 FY2004.
- Provide initial training to the field facilities to ensure accurate data is being recorded/input as required by Q3 FY2004.
- Provide remedial data input training throughout FY2004.

### Flight Plan Initiative 6.(ATS Leads)

Increase access to high-demand metropolitan areas for non-scheduled operations by adding new routes.

### ATS Activity

- A. Initiate procedural design efforts including new routes for non-scheduled operations in the NAR design guidelines and support the High Altitude Redesign (HAR) team in identifying development of operational procedures and equipment needs in implementing new routes.

*Performance Target: Develop guidelines for airspace design "best practices" by Q3 FY2004*

### Flight Plan Initiative 7.(ATS Leads)

Capitalize on Spring/Summer Plan data to improve traffic flow in bad weather.

### ATS Activity

- A. Flow Control Area (FCA) can be established by the ATCSCC and shared with users and field facilities on a real time basis. Preferred routes will be developed or identified by the ATCSCC and the

users can then decide which route to file around constrained areas. This will allow users (1) greater flexibility for operational benefits; (2) help to preclude sector/center congestion; (3) enhanced use of fix balancing; (4) increased airport capacity by offering multiple routes to/from airports otherwise affected by en route weather constraints. Implementation of the Departure Spacing (DSP) tool will allow for automated coordination of reroutes. This will increase airport capacity by reducing the wait/delay time for aircraft filed over an impacted departure fix. DSP has not received adequate funding for FY04 and development is currently on hold.

#### *Performance Target:*

- Combine FCA with the Reroute Advisory Tool (RAT), which will enable identification of specific aircraft that will need to be rerouted, as well as which routes the aircraft will be moved to/from. Integrate airline intent data into ETMS database for decision-making purposes. Collaboration between FAA and user community is underway to allow this integration by Q3 FY2004.
- Implementation of SMA at additional airports beginning in Q2 FY2004, with additional implementation phases throughout the year.
- Installation and utilization of CTAS at MIA, ATL, MSP, MCI, and the New York Metro airports to begin in Q3 FY2004.
- Complete WARP contracted (build 8.2, 8.4, and 8.5) enhancements by Q4 FY2004 (SSM).
- Finalize requirements for HOST Build 1.5 by Q4 2004.

### Flight Plan Initiative 8.(ATS Leads)

Develop and implement RNP/WAAS approach procedures to increase airport and runway use when visibility is restricted.

### ATS Activity

- A. The FAA will develop new approaches with vertical navigation (VNAV) guidance at certain airports or runways where no instrument approach exists, reducing the risk of controlled flight into terrain (CFIT) and providing access during instrument meteorological conditions (IMC). ATS will oversee the implementation of RNP Parallel Approach Transition (RPAT) special procedures that will increase arrival capacity in marginal VFR weather conditions.

*Performance Target:*

- Develop an RNP RPAT special procedure for at least one airport by Q4 FY2004.
- Coordinate the RPAT location list with the Terminal Area Operations Aviation Rulemaking Committee (TAOARC) by Q2 FY2004.
- Finalize requirements for HOST build 1.5 by Q4 FY2004.

**Flight Plan Initiative 9.(ATS Leads)**

Develop technology and procedures to increase the use of parallel runways in adverse weather conditions (for example, RNP, PRM, ADS-B/CDM, and FMA).

*ATS Activity*

- A. Precision Runway Monitor (PRM) system provides capacity improvements by increasing the number of aircraft that can simultaneously approach an airport for landing. There are air traffic control restrictions on allowing aircraft to fly side by side as they approach parallel runways. These restrictions primarily affect aircraft during limited visibility conditions. PRMs allow simultaneous approaches to runways closer than 4,300 feet by utilizing a radar that provides a one-second update of aircraft position information (vice 4.8 seconds for a conventional airport surveillance radar), which increases the number of aircraft that can be handled during adverse weather conditions, effectively increasing the capacity of the airport. The intended benefits of PRM include increased throughput, reduced delays, and improved fuel savings. Development of national standards and guidance for air traffic control procedures to conduct multiple parallel instrument approaches is an integral part of maximizing efficiencies and benefits from PRM. Pilot/operator training, and other system integration issues will be addressed during development of any air traffic control and flight crew procedures.

*Performance Target:*

PROGRAM	MILESTONE	FY-04	FY-05
PRM	ORD	0	1

- Issue guidance for air traffic control procedures for triple independent ILS approaches monitored by precision runway monitor (PRM) by Q4 FY2004.
- Complete feasibility study for simultaneous independent parallel approaches without monitoring to runways with centerlines separated by over 9,000 by Q1 FY2004.

**Flight Plan Initiative 10.(ATS Leads)**

Increase airport capacity under IFR conditions through the use of Traffic Management Advisor (TMA).

*ATS Activity*

- A. TMA provides improved capacity utilization and reduction in passenger delays. TMA enables en route controllers and traffic management specialists to develop complete arrival-scheduling plans ("meter lists") of properly separated aircraft. These plans then support early runway assignments that maximize the adapted airport's use of its available capacity. Significant fuel savings and reduced passenger delays result from efficiencies achieved through use of TMA.

*Performance Target:*

- The following table shows the TMA and TMA prototype deployment schedule for FY04 and FY05.

PROGRAM	MILESTONE	FY-04	FY-05
FFP-2 TMA-SC	DEPLOYMENT		1
TMA-MC PHL PROTOTYPE	DEPLOYMENT	1	

- ERAM SSR Q4 FY2004
- The following are Planned Capability Available (PCA) dates established by the Free Flight Program Office (AOZ) for TMA deployments in FY-04:
  - Atlanta ARTCC, April 2004.
  - Houston ARTCC, September 2004.

**Flight Plan Initiative 11.(ATS Supports)**

Sustain, improve, and modernize the operations & performance of the NAS. (There is no FP12; is this an ATS specific initiative?)

*ATS Activity*

ATS is responsible for the implementation, maintenance and modernization of the NAS air traffic infrastructure. By deploying an optimum mix of staffing, training, watch coverage, sparing, and centralized remote control, ATS sustains the systems, facilities, and equipment that comprise the NAS infrastructure. Therefore, this effort will be focused on dispensing timely, reliable, accurate data in support of the sustainment of NAS systems operations. Further, it will provide technology and strategic solutions, which will improve the operating efficiency of the Terminal environment.

- A. Continue NAS monitoring and control, program maintenance, restoration following policies and procedures.

- B. Conduct and attend radio frequency interference (RFI) training sessions.
- C. Improve scheduled maintenance and reduce restoration times where needed to reduce impact of potential outages.
- D. Perform 5 National Technical Evaluations of OEP/Major Facilities.
- E. Provide AF management and IPTs with NAS Performance and Flash Reports enabling the early identification of deficiencies in equipment performance.
- F. Provide reliable data studies on Weather, Surveillance, Communications, and Automation for making decisions on cost and performance.

*Performance Target:*

- *Sustain 99.76 percent adjusted availability of NAS capabilities for all reportable facilities. (Based on the FYs 1998-2002, 5-year average for composite adjusted availability) by the end of FY 2004.*
- *Tiger Team will resolve 100% of significant Radio Frequency Interference (RFI) incidents that result in delays and/or service outages by the end of FY2004.*
- 

<b>PROGRAM</b>	<b>MILESTONE</b>	<b>FY-04</b>
STARS	IOC	12
ATCT/TRACON REPLACE	COM	7
ATCT/TRACON MODERNIZE	COM	107
ASR-11	ORD	7
ASOS - Data Displays (ACE-IDS)		2
ASR-9 OSHA/SLEP Modification		20
Enhanced Terminal Voice Switch		4
LLWAS - Exp Networking Configuration		1
FDIO Replacement		74

## FLIGHT PLAN OBJECTIVE 2: MAKE AIR TRAFFIC FLOW OVER LAND AND SEA MORE EFFICIENT

ATS recognizes the need for better flow of air traffic during periods of adverse weather and will address that need through implementation of the following Strategies and Initiatives:

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### FY04 PERFORMANCE TARGETS

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Maintain average en-route travel times.

#### Flight Plan Initiative 1.(ATS Leads)

Redesign airspace for eight major metropolitan areas: New York, Philadelphia, Baltimore/Washington, Boston, San Francisco, Chicago, Atlanta, and Los Angeles Basin.

##### ATS Activity

- A. Work with regional airspace branches and air traffic facilities to complete all FY04 milestones for regional national airspace redesign projects in the en route airspace around eight major metropolitan areas. Projects include the NY/NJ/PHL Metropolitan Airspace Redesign, ZDC Redesign, Bay-to-Basin Redesign, Great Lakes Corridor and Midwest Airspace Capacity Enhancement Project

##### Performance Target:

- *NY/NJ/PHL Metropolitan Airspace Redesign DEIS completed by Q4 FY2004.*
- *Complete ZDC Redesign definition by late 2004*
- *Complete initial Great Lakes Corridor sectorization studies by late 2004*
- *Finalize Midwest Airspace Capacity Enhancement design and complete HITL modeling by mid 2004*
- *Complete HITL ZTL modeling by Q2 FY2004*

#### Flight Plan Initiative 2.(ATS Leads)

Use new equipment and technology to reduce en-route congestion.

##### ATS Activity

- A. New ARTCC sectors are being planned to support reducing en route sector complexity and congestion. In addition, the User Request Evaluation Tool (URET) is being deployed to assist the sector controlling team with managing conflicts in sector airspace. URET automatically predicts and notifies

controllers of conflicts between aircraft and special airspace. Improved weather forecasting tools will allow for better prediction of where/when to anticipate congestion en route associated with thunderstorms, etc. Creating en route metrics will help determine where volume exists along the flight path enabling the target of specific problem areas. Past trends in en route discrepancies will lead to better predictability of future constraints and will lend to more accurate planning. Arrival and surface tools, such as Center TRACON Automation System (CTAS) and Surface Movement Advisor (SMA), will reduce taxi and airborne holding times, which, in turn, will bring actual flight times more in line with expected times. An FCA can be established by the ATCSCC and shared with users and field facilities on a real-time basis. Preferred routes will be developed or identified by the ATCSCC and the users can then decide which route to file around constrained areas. This will allow users greater flexibility for operational benefits; help to preclude sector/center congestion; allow enhanced use of fix balancing; increase airport capacity by offering multiple routes to/from airports otherwise affected by en route weather constraints. The DSP tool will allow for automated coordination of reroutes. This will increase airport capacity by reducing the wait/delay time for aircraft filed over an impacted departure fix. Center sector traffic activity (HAME) is used to ensure optimization of existing equipment and this activity will assist the regional offices in the evaluation and most effective allocation of these resources.

##### Performance Target:

- *Complete HITL airspace study of ZKC East End resectorization and restratification by Q2 FY2004*
- *Complete transition planning for ZME redesign by Q4 FY2004*

- *Cleveland ARTCC will open a new 8<sup>th</sup> area of specialization in FY2004.*
- *Deploy URET to four ARTCCs in FY2004*
- *The DSP tool will be implemented at PHL and the Washington Metro airports by Q3 FY2004.*
- *Implementation of SMA at additional airports. (Phases throughout the year.)*
- *Enhancements to CCFP planned for by Q3 FY2004.*
- *Expanded use of Integrated Terminal Weather System (ITWS) planned for Q2 FY2004.*
- *Installation and utilization of CTAS at MIA, ATL, MSP, MCI, and the New York Metro airports to begin in Q2 FY2004.*
- *Deploy National Traffic Management Logs (database) to all Centers by Q1 FY2004.*
- *Deploy National Traffic Management Logs to the large TRACONs by the end of Q4 FY 2004.*
- *Award TFM Modernization design contract by Q3 FY2004.*
- *ECG first site GA by Q2 FY2004.*
- *ECG first six site ORDs by end of Q4 FY2004.*
- *ATDET finalize toolbar CHI by Q3 FY2004.*
- *WARP: Complete Builds 8.2, 8.3, and 8.5 by Q4 FY2004.*
- *Complete ERAM/ECG SSR by Q3 FY2004.*
- *Use HAME data to analyze sector activity and assist regions in optimization/allocation of limited equipment assets and provide recommendations to the regions on possible re-distribution of sector assets.*

### Flight Plan Initiative 3.(ATS Leads)

Implement high-altitude airspace redesign to reduce congestion.

#### ATS Activity

High Altitude Redesign (HAR) is the primary means to redesign en route airspace. HAR uses a phased approach that provides incremental benefits based on available aircraft and ground capabilities. The thrust of HAR is to balance structure and flexibility to provide optimal, efficient airspace design. ATS will provide air traffic procedures to support the High-Altitude Redesign (HAR) program office's phased implementation plan. This includes:

- Developing acceptable procedures
- Coordinating with all affected parties
- Support the negotiations process with affected unions
- Ensure new procedures are properly disseminated

*Performance Target:*

- *HAR Phase 1 Initial: seven northwest centers by Q1 FY2004.*
- *Define HAR Phase 2 Concepts by Q4 FY2004.*

### Flight Plan Initiative 4.(ATS Supports)

Provide communication infrastructure to make airspace restructuring feasible

#### ATS Activity

- ATA will contribute to this initiative by coordinating with Air Traffic Procedures/Operations and associated CNS/ATM program offices by sharing operational requirements for infrastructure.

#### Performance Target:

- *Develop comprehensive list of infrastructure requirements for NAR projects through 2008 by Q3 FY2004.*
- *With the FTI Product Team, develop the Basis of Estimate and APB to rebaseline FTI (including Mission Support) for JRC approval by Q4 FY2004.*
- *Replace 1630 Litton Type III VSH bases at the AFSSs by Q4 FY2004. Completion of this effort will close out several UCRs submitted complaining of inadequate headset volume.*
- *Complete evaluation of industry responses to Screening Information Request for Long Range Radar Service Life Extension by Q4 FY2004.*
- *Complete installation and testing for the Command Center Switch at the Air Traffic Control System Command Center by Q2 FY2004.*
- *Complete the draft Navigational Implementation Plan that includes the finalized decommissioning schedule for each VOR located in the Great Lakes and Southern regions by Q4 FY2004.*

### Flight Plan Initiative 5.(ATS Leads)

Implement time-based metering at air traffic control centers in Los Angeles, Oakland, Miami, and Houston.

#### ATS Activity

- TMA is a strategic planning tool for high altitude controllers and traffic management specialists. It provides computer automation to enhance arrival sequence planning and the efficiency of air traffic operations in the extended terminal airspace.

*Performance Target: The following are Planned Capability Available (PCA) dates established for TMA deployments in FY2004:*

- Los Angeles ARTCC, Q1 FY2004
- Atlanta ARTCC, Q3 FY2004
- Houston ARTCC, Q4 FY2004

#### Flight Plan Initiative 6.(ATS Leads)

Implement real-time use of special use airspace.

##### ATS Activity

- A. The Special Use Airspace Management System (SAMS) is undergoing a network upgrade to ease communication bottlenecks in its SUA data collection. Data is being supplied to the High Altitude Redesign effort to inform airspace users of SUA status. The Special Use Airspace/In-Flight Service Enhancement (SUA/ISE) is being installed now at all 61 automated flight service stations (AFSS). SUA/ISE will graphically display SUA status for AFSS specialist and improve pilot briefings. Field facilities will maintain an emphasis on the reporting of SUA availability.

##### Performance Target:

- Complete SAMS network upgrade by Q4 FY2004.
- Complete installation of SUA/ISE by Q4 FY2004.

#### Flight Plan Initiative 7.(ATS Leads)

Enhance VFR flight operations to improve the ability of General Aviation flights to gain greater access to metropolitan areas and other constrained airspace.

##### ATS Activity

- A. Dissemination of surveillance data and accurate weather information to GA aircraft will enable the GA aircraft to operate more efficiently within major metropolitan areas. Under Safe Flight 21, the prototypes for an ADS-B capable Common ARTS and STARS are being developed. ADS-B along with TIS-B will allow more efficient VFR operations by General Aviation within major metropolitan areas through improved surveillance. Currently ADS-B/TIS-B standards work is on-going (ADS-B ATDP). In addition, weather information systems such as ITWS provide timely weather information to GA aircraft.

##### Performance Target:

- Totals for FY-04 and FY-05 milestones related to ADS-B capability for Common ARTS and STARS, and implementation of ITWS are shown in the table below. ADS-B CARTS Prototype and ADS-B STARS Prototype milestones are TBD at this point due to funding constraints.

PROGRAM	MILESTONE	FY-04	FY-05
ADS-B CARTS PROTOTYPE	TBD		
ADS-B STARS PROTOTYPE	TBD		
ITWS	ORD	2	3

#### Flight Plan Initiative 8.(ATS Leads)

Redesign oceanic airspace to improve capacity.

##### ATS Activity

- A. This initiative focuses on the efficient use and redesign of oceanic airspace to maximize capacity for airspace users. It will continue the work with the oceanic facilities to review, approve, and coordinate publication of airspace changes through the National Flight Data Center. Various international working groups with service providers and airspace users will evaluate and improve oceanic airspace capacity. FY2004 projects include realigning the Houston-Miami-Jacksonville (ZHU-ZMA-ZJX) ARTCC boundary, completing the west coast transition airspace project, realigning the ZOA domestic/oceanic FIR to correspond with the revised CTA boundary, establishing a flexible boundary between ZOA and ZAN to better accommodate coordination on the flex tracks as they move between FIR/CTA boundaries. Oceanic Redesign will include resectorization and new routing within oceanic and offshore airspace, conceptualized and executed in a nationally coordinated manner throughout all associated facilities. Other oceanic redesign projects are proposed in the Atlantic, Pacific, and Gulf. Efforts in FY2004 will focus on design activities after ATOP (Advanced Technology and Oceanic Procedures) has been implemented.

##### Performance Target:

- Implement coded Caribbean Reroutes to expedite airborne reroutes from the North Atlantic to the Caribbean and Central/South America by the end of FY2004.
- ZHU-ZMA-ZJX boundary change feasibility study Q1 FY2005.
- Work with Houston, Miami, and Jacksonville ARTCCs to shift airspace boundaries in order to eliminate extra flight plan verification, inter-facility altitude coordination and to reduce pilot/controller radio communications requirements by Q1 FY2005
- Support new airspace and route designs in the Gulf of Mexico airspace to promote more capacity for low level helicopter activities as well as higher altitude overflights by Q4 FY2004.

### Flight Plan Initiative 9.(ATS Supports)

Implement enhanced oceanic procedures to permit greater access to requested altitudes and routes.

#### ATS Activity

- A. Publish U.S. procedures in accordance with international guidance material in support of more efficient air traffic flows over land and seas, and provide domestic and international coordination to existing oceanic air traffic procedures.

#### Performance Target:

- Domestic and international coordination for changes in existing oceanic air traffic procedures. Q3 FY2004
- Publish changes to existing oceanic air traffic procedures to support implementation of distance based longitudinal separation and standardization of the application of Mach Number Technique. Q4 FY2004
- Implement international procedures for the use of Automatic Dependent Surveillance – Addressable (ADS-A) as well as contingency procedures for application of distance based longitudinal separation in the event of the loss of ADS-A capability. Q4 FY2004.

### Flight Plan Initiative 10.(ATS Leads)

Implement Reduced Vertical Separation Minimum.

#### ATS Activity

- A. Reduced Vertical Separation Minimum (RVSM) is an ICAO approved concept that allows a 1,000-foot vertical separation standard for traffic operating between flight levels 290 and 410. The FAA plans to implement RVSM in the domestic airspace of the United States, in the Gulf of Mexico where FAA provides air traffic services, and in the San Juan Flight Information Region. This program is called Domestic Reduced Vertical Separation Minimum (DRVSM). The program encompasses regulation for aircraft equipage, air traffic control automation and procedures to use the new separation standard, and airspace monitoring to ensure system safety. This program improves air traffic flow and efficiency by providing greater capacity to accommodate en route flight profiles along with adding additional flight levels.
- B. RVSM will increase efficiency for airspace users and the capacity of the air traffic system within North America. Traffic flows across the U.S. boundaries with Canada and Mexico are seamless and harmonized. Implementation of RVSM is needed to ensure that these traffic flows are not

interrupted. The FAA is working with ATS providers and regulatory authorities in Canada and Mexico to ensure that this new separation standard is implemented on a common date. This is being accomplished through informal meetings. Additionally, the FAA is working with Cuba, Haiti, Dominican Republic, Netherlands Antilles, Venezuela and Trinidad and Tobago, with whom U.S. facilities have common boundaries, to encourage their implementation of RVSM.

#### Performance Target:

- Create North American RVSM Coordination Group by February 29, 2004.
- Finalize proposed amendment to ICAO North American Regional Supplementary Procedures by Q1 FY 2004.
- By Q2 FY2004, sponsor R&D efforts to improve detection of hazardous weather for en route operations.
- Harmonize North American and Caribbean RVSM implementation through the exchange of RVSM implementation plans during two (2) regional meetings. The first meeting will be held during Q1 FY2004 and the second will be held in Q3 FY2004.
  - One meeting to be held before the end of Q1 FY2004
  - Second meeting to be held before the end of Q3 FY2004
- DSR: Field BCC22 by Q4 FY2004.
- Deliver HOST 1.4 Q2 FY2004.

### Flight Plan Initiative 11.(ATS Leads)

Increase arrival and departure rates through wake turbulence monitoring, operational procedures, and controller spacing tools.

#### ATS Activity

- A. This effort will identify runway separation criteria for wake independent operations on closely spaced parallel runways addressing all operational applications including dual operations with small aircraft operating independently from other small aircraft; dual operations with a large aircraft on one runway and a large or small aircraft on another; and dual operations with heavy aircraft on one runway and a heavy, large or small aircraft on the parallel runway. In addition, this effort will validate the revised closely spaced parallel runway wake turbulence criteria and validate reductions in the associated radar separation criteria to support arrival and departure operations to or from runways separated by less than 2500 feet. This effort is designed to minimize requirements for new

equipment, training, or procedures to maximize pilot and controller acceptance and participation and to maximize the potential benefits to be derived.

*Performance Target: The FY04 and FY05 procedure development schedule for designated airport sites is provided in the table below.*

## Flight Plan Initiative 12.(ATS Leads)

Develop and implement enhanced systems and techniques to improve Collaborative Decision-Making (CDM).

### ATS Activity

A. The CDM Program is a joint/government industry initiative, which has worked to develop new technology and procedures to ensure a safe and efficient National Airspace System (NAS) beneficial for the aviation community and the flying public. CDM participants meet during non-severe weather months to try to modernize the entire NAS to meet the challenges of increased air traffic and a growing community of users, while maintaining safety and efficiency. CDM workgroups actively work to enhance: Reroute advisories, National playbook/CDRs, Ground Delay Programs, Slot Credit Substitution, Integrated Traffic Flow Management, Weather Applications, and Training.

*Performance Target:*

- *Reroute Advisories*
  - *To improve the language that is used in reroute advisories so that there is no ambiguity and so that all FAA and NAS user personnel can properly interpret these advisories.*
  - *To accompany each reroute advisory with a list of affected flights so that everyone will have a clear idea of which flights are relevant.*
  - *To provide this list of affected flights in a machine-readable form so that NAS users can deal with it efficiently.*
  - *Incorporate reroute advisory flight lists into FEAs Q3 FY2004.*
  - *Automation of processes and integration of systems*
  - *Give all NAS users the opportunity to have common situational awareness of current CDM training products and procedures by way of a CDM training distribution center complete with*

*instructor and subject matter and support experts*

- *National Playbook/CDRs*
  - *Improve updating process for ARTCC facilities.*
  - *Incorporate Graphic presentation and play book information.*

<i>Program</i>	<i>Milestone</i>	<i>FY-04</i>	<i>FY-05</i>
<i>Wake Vortex</i>		<i>0</i>	<i>1</i>

- *Implement and improve coordination procedures and route development options Q2 FY2004.*
- *Automation of processes and integration of systems*
- *Give all NAS users the opportunity to have common situational awareness of current CDM training products and procedures by way of a CDM training distribution center complete with instructor and subject matter and support experts*
- *Ground Delay Program Enhancements*
  - *FSM improvements/software changes.*
  - *Fixing data algorithm anomalies.*
  - *Distance Based GDP.*
  - *Slot Credit Substitutions (SCS/ECR) Q2 FY2004.*
  - *Automation of processes and integration of systems*
  - *Give all NAS users the opportunity to have common situational awareness of current CDM training products and procedures by way of a CDM training distribution center complete with instructor and subject matter and support experts*
- *Integrated Traffic Flow Management*
  - *Automation of processes*
  - *Integration of systems (Beginning in Q1 FY2004 and ongoing throughout the year)*
- *Weather Applications*
  - *Develop and implement integrated training process on CCFP*
  - *Create a mechanism to train on program changes and updates*
  - *Explore using the information provided in additional weather products to develop traffic flow management strategies Q2 FY2004.*
- *Training*
  - *Give all NAS users the opportunity to have common situational awareness of current CDM training products and*

*procedures by way of a CDM training distribution center complete with instructor and subject matter and support experts*

- *Set timelines to comply with:*
  - a.) CDM annual training, (S2K+2), and*
  - b.) Fast track training as it is developed to the extent possible*
- *Consistent and regular status checks with all CDM leads remain current with the latest CDM developments and projected implementation dates.*
- *Review and respond to critiques from NAS users and instructors in the field. Use multi-dimensional delivery methods to the extent possible to meet system stakeholders' needs beginning Q2 FY2004.*

### **Flight Plan Initiative 13.(ATS Leads)**

Analyze and disseminate weather information to controllers and pilots through new automated systems.

#### *ATS Activity*

- A. Terminal weather system programs address the detection, analysis, dissemination, and reporting of weather conditions related to Low Level Windshear and hazardous weather conditions such as microburst, gust fronts, winds, precipitation, thunderstorms, and turbulence at and around airports. The ability to provide a real time display of storm positions and estimated storm tracks, and advanced notice of changing wind conditions to permit timely change of active runways. The availability of real time weather information will result in decreased weather delays and more efficient use of airport capacity.

*Performance Target: Milestones for the deployment of ITWS systems to designated sites are shown in the following table.*

<i><b>Program</b></i>	<i><b>Milestone</b></i>	<i><b>FY-04</b></i>	<i><b>FY-05</b></i>
<i><b>ITWS</b></i>	<i><b>ORD</b></i>	<i><b>2</b></i>	<i><b>3</b></i>

- *Build EP-20 SSM by Q3 FY2004.*
- *Complete 18-month evaluation by Q1 FY2004 and forward report by Q2 FY2004.*

### **FLIGHT PLAN OBJECTIVE 3: INCREASE OR IMPROVE AIRSPACE CAPACITY IN THE EIGHT MAJOR METROPOLITAN AREAS AND CORRIDORS THAT MOST AFFECT TOTAL SYSTEM DELAY: NEW YORK, PHILADELPHIA, BOSTON, CHICAGO, WASHINGTON/BALTIMORE, ATLANTA, LOS ANGELES BASIN, AND SAN FRANCISCO**

Airspace congestion surrounding the eight major airports is not only a problem related directly to capacity, but also to the safety of those individuals being transported within that air space. ATS is actively pursuing the implementation of programs that will relieve the strain of the current air space and increase capacity for these airports through the implementation of the following Strategies and Initiatives:

#### **FY04 PERFORMANCE TARGETS**

Achieve an airport arrival capacity for the 8 major metropolitan areas of 21,290 per day.

#### **Flight Plan Initiative 1.(ATS Supports)**

Support master plans for airfield improvements at airports in major metropolitan areas.

##### *ATS Activity*

A. Develop an FAA master project schedule for Chicago capturing all activities and resources required for the FAA to support airfield and NAS enhancements associated with the Chicago O'Hare Modernization Plan (OMP), with emphasis on "Phase I" work defined under the OMP proposals. Phase I work includes: Construction of new Runway 9L-27R; Construction of new Runway 10C-28C; Extension of Runway 10L-28R (the existing runway currently designated as 9R-27L); and the initial portion of the new West Terminal Complex. ARC currently has Horizontal Integration teams for New York, Boston, Chicago, Washington/Baltimore, Atlanta, and the LA Basin to address capacity initiatives for those airports. Capacity improvements being discussed for Philadelphia and San Francisco would also benefit from the focus and visibility provided by a Horizontal Integration team.

##### *Performance Target:*

- *Create a Runway Template Action Plan (RTAP) for the north runway phase of the OMP by January FY2004, including all milestones and budgetary information to be used to track progress, status, and elevate issues.*
- *Establish Horizontal Integration Teams under the leadership of the AEA and AWP Regional Administrators to address possible capacity initiatives for Philadelphia and San Francisco by Q2 FY2004.*

#### **Flight Plan Initiative 2.(ATS Leads)**

Redesign terminal airspace and change procedures.

##### *ATS Activity*

A. Work with regional airspace branches and air traffic facilities to complete all FY04 milestones for regional NAR projects in the terminal airspace around the eight major metropolitan areas. NAR projects will include the NY/NJ/PHL Metropolitan Airspace Redesign, Boston Consolidated TRACON Redesign, Northern California Redesign, Midwest Expansion (C90), Atlanta 5<sup>th</sup> Runway, LA Basin Optimization and Redesign.

##### *Performance Target:*

- *NY/NJ/PHL Metropolitan Airspace Redesign DEIS completed by 2004.*
- *Re-charter Northern California Redesign by Q1 FY2004.*
- *Complete Midwest Expansion – Chicago human-in-the-loop (HITL) modeling in Q4 FY2004.*
- *Re-charter LA Basin Optimization and Redesign by Q1 FY2004.*

### Flight Plan Initiative 3.(ATS Leads)

Complete the redesign of the congested airspace in New York.

#### *ATS Activity*

- A. Airspace changes in the NY/NJ/PHL area are focused on modernizing and integrating traffic flows, altering the way controllers manage airspace. Key design elements include optimal point-to-point routing, flexible airspace management, terminal holding, when needed, and increased use of terminal separation.

#### *Performance Target:*

- *NY/NJ/PHL Metropolitan Airspace Redesign DEIS completed by Q3 FY2004.*

### Flight Plan Initiative 4.(ATS Leads)

Redesign airspace to reduce runway constraints and support Area Navigation procedures where feasible.

#### *ATS Activity*

- A. ATS will ensure development of area navigation (RNAV) procedures using other than straight-in path segments, and narrow RNP segments with vertical navigation (VNAV) to avoid noise-sensitive airspace and to streamline arrivals.

#### *Performance Target:*

- *Publish segmented approach procedure at a major airport in Q4 FY2004*

## FLIGHT PLAN OBJECTIVE 4: INCREASE ON-TIME PERFORMANCE OF SCHEDULED CARRIERS

### FY04 PERFORMANCE TARGETS

Increase the percentage of all flights arriving within 15 minutes of schedule at the 35 OEP airports to 82.10%.

#### Flight Plan Initiative 1.(ATS Supports)

Share information seamlessly between Flight Operations Centers and ATCs by using System Wide Information Management (SWIM).

##### ATS Activity

A. SWIM is a system-wide mechanism that allows a top-down oriented approach towards the integration and management of shared ATM information, whatever its kind, origin, owner, purpose, storage location, volatility or update rate. SWIM promotes the development and implementation of such mechanisms at the legal, institutional, business, organizational, operational and technical levels. ATS will continue conceptual design and SWIM operational concept discussions with FAA and Eurocontrol developers.

##### Performance Target:

- *Support SWIM development activities and identify air traffic operational issues and needs.*

#### Flight Plan Initiative 2.(ATS Supports)

Validate and analyze statistics from the DOT's Delay Reporting System to identify and remedy causes of delay within the FAA's control.

##### ATS Activity

A. Major air carriers must file a monthly report, categorizing the causes of delays and cancellations, with the DOT Bureau of Transportation Statistics (BTS) and the Office of the Secretary of Transportation (OST). Details of what this report shall contain is set forth in a rule issued by the DOT BTS. Participation in the DOT-formed Air Carrier On-Time Reporting Advisory Committee will include several organizations within the FAA. Once the report is received, the information will be validated, analyzed, and compared to delay data as submitted by FAA facilities via the Operations Network (OPSNET).

##### Performance Target:

- *Procedures will be developed whereby when discrepancies occur, the reasons can be tracked, corrected, and prevented in the future Q2 FY2004.*

#### Flight Plan Initiative 3.(ATS Leads)

Improve modeling and forecasting techniques to better anticipate and react to volume constraints and to achieve greater conformity between expected and actual flight times.

##### ATS Activity

A. Obtaining better, more accurate airline data; updating/enhancing current traffic management tools, improving weather forecasting abilities, researching and developing en route metrics to examine en route compliance. Air carrier data allows for better predictability, i.e., airlines will submit early intent messages 3 hours prior to departure and continue to provide updated flight information as soon as it becomes available. This data will allow examination of potential volume constraints several hours in the future, providing additional time for managing/planning initiatives to accommodate the volume. It also will increase confidence in the sector monitor capabilities. Improved weather forecasting tools will allow for better prediction of where/when to anticipate en route congestion associated with thunderstorms, etc. Creating en route metrics will help determine where volume exists along the flight path enabling the target of specific problem areas. Past trends in en route discrepancies will lead to better predictability of future constraints and will lend to more accurate planning. Arrival and surface tools, such as Center TRACON Automation System (CTAS) and Surface Movement Advisor (SMA), will reduce taxi and airborne holding times, which, in turn, will bring actual flight times more in line with expected times.

##### Performance Target:

- *Implementation of SMA, CTAS and additional weather products such as WARP (Weather and Radar Processor) and CIWS (Corridor*

*Integrated Weather System) at additional facilities by Q2 FY2004*

- *Integrate airline intent data into ETMS database by Q1 FY2004.*
- *Complete WARP Builds 8.2, 8.4, and 8.5 by Q4 FY2004.*

## FLIGHT PLAN OBJECTIVE 5: ADDRESS ENVIRONMENTAL ISSUES ASSOCIATED WITH CAPACITY ENHANCEMENTS

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### FY04 PERFORMANCE TARGETS

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- Reduce the number of people exposed to significant noise through FY2008, as measured by a three-year moving average, from the three-year average for calendar year 2000-2002.
- Improve aviation fuel efficiency per revenue plane-mile by 1% per year through 2008, as measured by a three-year moving average, from the three-year average for calendar year 2000-2002

#### Flight Plan Initiative 1.(ATS Leads)

Implement low altitude-airspace redesign, increasing efficiency while considering environmental impacts

##### *ATS Activity*

- A. Ensure that appropriate environmental studies are completed for low-level airspace redesign projects.

##### *Performance Target:*

- *Environmental reviews will be conducted as appropriate under the National Environmental Policy Act for airspace redesign projects as required.*

#### Flight Plan Initiative 2.(ATS Supports)

Develop best practices for airport and airline community relations to educate and inform the public about aviation and the environment, Topics include compatible land use, noise disclosure, and FAA web site information.

##### *ATS Activity*

- A. Initiate a training course for air traffic personnel with environmental duties. This training will address the best practices for airport and airline community relations to educate and inform the public about aviation and the environment.

##### *Performance Target:*

- *Air Traffic personnel environmental training to be completed by Q4 FY2004*

# INTERNATIONAL LEADERSHIP



## OVERVIEW

The FAA operates the largest and most complex aviation system in the world, controlling almost half of the world's air traffic. Our commitment is to make air travel as safe and efficient abroad as it is at home. To achieve this, the FAA must work effectively with its key bilateral partners as well as with regional and multilateral aviation organizations; support the global implementation of proven air traffic technologies and procedures. In addition it must leverage the technical and financial resources available to raise the requirements and oversight of all civil aviation authorities to a high safety standard.

This Office contributes to the following strategic International Leadership Objectives outlined in the FAA 2004-2008 Flight Plan:

### International Leadership Objectives

1. Promote improved global safety and regulatory oversight in cooperation with bilateral, regional, and multilateral aviation partners.
2. Promote seamless operations around the globe in cooperation with bilateral, regional, and multilateral aviation partners.

A more detailed description of each Objective, including its supporting Initiatives and Performance Targets follows.

## FLIGHT PLAN OBJECTIVE 1: PROMOTE IMPROVED SAFETY AND REGULATORY OVERSIGHT IN COOPERATION WITH BILATERAL, REGIONAL, AND MULTILATERAL AVIATION PARTNERS.

### FY04 PERFORMANCE TARGETS

- Secure a 20% increase, over FY 03 levels, in intellectual and financial assistance for international aviation activities from U.S. and international government organizations, multilateral banks, and industry.
- Conclude new bilateral agreements recognizing safety certification/approval systems with two key countries.
- Provide new or expanded technical assistance to six key countries.

#### Flight Plan Initiative 1. (ATS Supports)

Strengthen bilateral relations with Western Hemisphere partners to increase regional safety, while sharing proven safety techniques with the rest of the world.

##### ATS Activity

- A. ATS will provide information related to the US/Canada/Mexico for use in establishing trilateral positions for upcoming ICAO assembly in September 2004. ATS will support FAA participation in the Tenth North American Aviation Trilateral (NAAT) meeting in June 2004 in Canada. continue to share proven safety techniques (procedures and technology applications) with our aviation partners in Europe, Asia, the Pacific Rim, and South and Central America through bilateral and multilateral coordination and working groups, task forces and information sharing sessions.

##### Performance Target:

- *ATS will support other FAA offices to include ATS background and expertise to support the ICAO Assembly meeting in September 2004.*
- *ATS representative(s) will participate in preparation for the NAAT meeting June 2004.*

#### Flight Plan Initiative 2. (ATS Supports)

Support expansion of ICAO's Safety Oversight Audit Program to air traffic services, accident investigation and airports.

##### ATS Activity

- A. ATS will continue to support any follow-up activities related to ICAO's expansion of the Safety Oversight Audit to air traffic services. Having recently completed ICAO's self audit for safety oversight practices outlined in ICAO Annex 2, Rules of the Air, Annex 11, Air Traffic Services, and Document 4444, Rules of the Air and Air Traffic Services, ATS will provide input to any related after-actions.

##### Performance Target:

- *As needed, ATS will work with other FAA offices to support further responses to ICAO's Safety Oversight Audit Program in the area of air traffic services throughout FY2004.*

#### Flight Plan Initiative 3. (ATS Leads)

Work with developing states to encourage the use of FAA's Safety Management System as a model for their safety management programs.

##### ATS Activity

- A. This initiative will encourage the use of FAA's Safety Management System (SMS) for the provision of air traffic control services. The goal is to establish an internationally compatible means of verifying that all safety significant changes have been assessed and mitigated.

##### Performance Target:

- *Provide copy of approved FAA SMS Manual to developing States that request assistance by Q4 FY2004.*

#### Flight Plan Initiative 4. (ATS Supports)

Support implementing English language proficiency training for air crews and air traffic controllers.

##### ATS Activity

- A. In 2003, the International Civil Aviation Organization (ICAO) approved a minimum English language standard to be used by States in licensing pilots and controllers starting in 2008. The group that created this new standard received support from the FAA's Air Traffic Service. During 2004, ICAO will sponsor a worldwide symposium on the new English language requirements followed by seminars in several locations around the world. As part of our continuing campaign of enhancing civil aviation worldwide, the Air Traffic Organization will support this endeavor fully.

*Performance Target:*

- *Support ICAO Montreal in the preparation of guidance material for international seminars aimed at informing states how to comply with the new guidance material on the minimum English language standard.*
- *Participate in two information seminars aimed at providing States with guidance material on how to comply with the newly proposed ICAO minimum English language standards for controllers and pilots.*

**Flight Plan Initiative 5. (ATS Leads)**

Work with international service partners to develop a standardized definition of runway incursion, a common categorization system, and a runway incursion database.

*ATS Activity*

Begin development of a Runway Incursion Severity Categorization (RISC) Model that can be applied internationally.

- A. Develop a list of scenarios that define situations that result in runway incursions.
- B. Develop a list of factors that affect the variability of the outcome of runway incursions.
- C. Develop algorithms that assign a severity rating to runway incursions.
- D. Evaluate the performance of the model with six months of U.S. runway incursion data.

*Performance Target:*

- *Complete the four activities by August 30, 2004.*
- *Present a demonstration briefing of the model for feedback by September 2004.*

## FLIGHT PLAN OBJECTIVE 2: PROMOTE SEAMLESS OPERATIONS AROUND THE GLOBE IN COOPERATION WITH BILATERAL, REGIONAL, AND MULTILATERAL AVIATION PARTNERS

Promotion of seamless operations around the world will require standardization of separation criteria, traffic flow management systems, coordination, and automation systems that allow aircraft to flow transparently across international boundaries. These efforts will help to ensure the global implementation of technologies and processes that enhance capacity and interoperability. The international Telecommunication Union's (ITU) World Radio Communication Conference (WRC)-2007

agenda includes many issues of critical importance to civil aviation. The FAA is participating in a variety of national and international forums to achieve worldwide agreement and support for these radio spectrum issues. Promote seamless operations around the world by working to standardize separation criteria, traffic flow management systems, coordination and automation aimed at an air traffic control system that allows aircraft to flow transparently across international boundaries.

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### FY04 PERFORMANCE TARGETS

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- Develop all civil aviation related U.S. preliminary positions and represent them to NTIA's Radio Conference Subcommittee.
- Provide preliminary ICAO civil aviation positions, which support FAA interests, for WRC-2007 to ICAO's ACP Working Group F by February 2004.
- Provide the results of technical studies directed by WRC-2003 to ITU Working Parties 8D and 8B.
- Participate in the CITELE organization to promote U.S. civil aviation positions to obtain consensus between Canada, North America, Central America, and South America for WRC-2007 positions.
- Coordinate implementation of RVSM in the North American Region by Q2 FY2005.

#### Flight Plan Initiative 1. (ATS Supports)

Promote commercial proliferation and interoperability, and use of the Global Navigation Satellite System (GNSS) and GCNSS augmentation systems internationally.

##### ATS Activity

- A. Ensure new procedures, processes, and technologies are globally harmonized. Active participation with formal ICAO regional groups, such as GREPECAS, NAT SPG, APANPIRG, and various informal groups will support improved air traffic control activities. Support of GNSS analysis will include scenario development, modeling and simulation, and an architecture review and analysis study. Support of operational tests will demonstrate how new

concepts, technologies, systems, and procedures can be integrated with the existing FAA CNS/ATM architecture. FAA will continue to work with international partners to ensure that identified operational issues are addressed consistent with the goal of global harmonization of air traffic control services.

*Performance Target: Support GNSS development activities and identify air traffic operational issues at the following meetings:*

- APANPIRG: August 2004
- SASP: November 2003 and June 2004
- MAPCOG: May 2004
- NAT SPG: June 2004
- GREPECAS: June 2004

#### Flight Plan Initiative 2. (ATS Supports)

Develop ADS-B and other capacity enhancing applications, necessary standards, equipment requirements and operational procedures for global implementation.

##### ATS Activity

- A. ATS participates in the development and analysis of simulation/demonstration activities and identifies changes to Air Traffic policies and procedures for assurance of a safe and expeditious operation.

*Performance Target:*

- ATS provides on-going support of the Safe Flight 21 and Capstone Programs through

*identification of operational requirements and changes to Air Traffic procedures.*

- *Begin development of draft US position on emerging technologies for introduction at ICAO OPLINK Panel meeting, scheduled for FY2005, by Q4 FY2004.*

### Flight Plan Initiative 3. (ATS Supports)

Develop tools and processes for exchanging flight data, surveillance information, and traffic flow management data to improve and harmonize global air navigation services.

#### ATS Activity

- A. Supports and facilitate the primary offices to accomplish the international coordination process necessary to enable the exchange of flight data, surveillance information, and traffic flow management data. To do this, the office provides other States, territories and organizations with information on the benefits and requirements for such exchanges, as well as facilitating internal coordination of applicable international agreements.

#### Performance Target:

- *Provide information to five (5) States, territories and organizations over the course of Q1, Q2, and Q3 FY2004.*
- *Begin ETMS data exchange with at least one new State in FY2004.*

### Flight Plan Initiative 4. (ATS Leads)

Establish new and update existing operational agreements between the FAA, Mexico, and Canada that support requirements for air traffic control communication and coordination.

#### ATS Activity

- A. Promote, facilitate and support development of new separation standards, automation interfaces, airspace redesign and improved air traffic control procedures. Work to be accomplished by electronic communications and bilateral and multilateral meetings as needed.

#### Performance Target:

- *Review all operational Letters of Agreement between the U.S. and Canada/Mexico in reference to separation standards, airspace redesign and improved procedures.*
- *Update operational Letters of Agreement with Canada/Mexico for automated systems interface testing of improved procedures and automation.*

- *Host trilateral informational meeting to review implementation of improved separation standards and airspace redesign*
- *Host Automation Systems Interface coordination meeting*
- *Host trilateral executive level meeting to review strategic plans in reference to operational matters and Reduced Vertical Minima Implementation in North America.*

### Flight Plan Initiative 5. (ATS Leads)

Implement reduced separation standards.

#### ATS Activity

Coordinate with various offices to reduce oceanic separation standards within the US and in international oceanic airspace. Efforts will include:

- A. Activities and performance targets for this initiative include the international component of those that appear under the Greater Capacity Goal, Objective 2, Flight Plan Initiative 10: Implement Reduced Vertical Separation Minimum

#### Performance Target:

- *Coordinate activities needed to complete implementation of the ATOP-enabling capabilities such as ADS-A, CPDLC and RNP.*
- *Publish procedures for 50/50 lat/long separation and implement those separation standards in the Pacific.*
- *Publish (but not yet implement) procedures for 30/30 lat/long separation standards.*
- *En Route Enhancements: Field DSR BCC22 Q4 FY2004.*

### Flight Plan Initiative 6. (ATS Leads)

Promote harmonizing and implementing RNP globally and developing international air traffic routes to take advantage of enhanced aircraft equipment.

#### ATS Activity

- A. The FAA will work with international stakeholders to harmonize the implementation of performance-based navigation strategy. Harmonization issues will be coordinated through international forums, such as the recently established ICAO RNP Study Group to focus on harmonization issues. The RNP program office will review and initiate procedures for better identification of RNP/RNAV equipped aircraft to mirror ICAO equipment suffixes. In addition, efforts will be made to address a number of implementation issues that require harmonization, such as standardization of RNAV and RNP terms,

air traffic procedures, concepts for waypoint naming and usage, and charting.

*Performance Target:*

- *Introduce concepts to Eurocontrol Navigation Applications SubGroup (NASG) and international RNAV working group by the end of Q3 FY2004.*
- *Develop a framework for the resolution of issues identified by GNSSP/4 and for implementation of performance-based navigation operations by the end of Q4 FY2004.*
- *Conduct a RNP/RNAV/GNSS Implementation Seminar for the Africa Indian Ocean Region in Q3 FY2004, assuming OST funding is made available.*

well defended and supported at the World Radio Communication (WRC) meeting, as well as at other regional and international forums.

*Performance Target:*

- *Present working and information papers to regional and international meetings to make U.S. aviation policies and interests known, and to gather support for U.S. positions.*
- *Support the preparation of Working and Information papers for presentation at Regional Planning Group (RPG) meetings requesting backing for U.S. positions at the WRC meeting.*
- *Bilaterally, approach key states with voting representation at the WRC to obtain their support for US positions during the WRC.*

**Flight Plan Initiative 7. (ATS Leads)**

Support U.S. aviation interests at the World Radio Communication Conference and other regional and international forums.

*ATS Activity*

- A. The Air Traffic Organization will coordinate internally and externally with international stakeholders to ensure that U.S. aviation policies and interests, including frequency spectrum issues, are

## A collection of various aviation-themed pins and medals. The items include a pilot's wings, a globe, a flag, and a circular emblem with a globe. The pins are made of metal and some have enamel. They are arranged in a cluster, with some overlapping. The background is dark and out of focus.

## OVERVIEW

ATS will help ensure the success of the FAA's mission through stronger leadership, a better-trained workforce, a closer eye on spending, and improved decision-making based on reliable data by concentrating on improving its telecommunications services. A performance-based contract for telecommunications services that will provide significant cost savings over existing systems, enhanced information assurance management, facilitate NAS modernization efforts, improve service performance, improve visibility and oversight, and improve service delivery.

ATS has established a cross-organizational team to address the Occupational Workmen's Compensation Program (OWCP) directed toward establishing a record-keeping process that links OWCP with our employee occupational safety program, developing support positions throughout the ATS organization to match employees' working capabilities with meaningful work to be done, and working with regional Department of Labor offices to determine individual capabilities with work assignments, returning them to work, and removing them from the OWCP compensation roles.

To reduce the risk of information security impacts on FAA mission accomplishment, it is imperative to assess systems, identify technological weaknesses and implement corrective security actions. Continuing to work Information Systems Security (ISS) by completing these objectives would ensure continued operations in a safe and secure environment, and that air traffic control and other information systems of the FAA are protected from unauthorized intrusions.

This Office contributes to the following strategic Organizational Excellence Objectives outlined in the FAA 2004-2008 Flight Plan:

### Organizational Excellence Objectives

1. Make the organization more effective with stronger leadership, increased commitment of individual workers to fulfill organization-wide goals, and a better prepared, better trained, diverse workforce.
2. Control costs while delivering quality customer service
3. Make decisions based on reliable data to improve our overall performance and customer satisfaction

A more detailed description of each Objective, including its supporting Initiatives and Performance Targets follows.

## FLIGHT PLAN OBJECTIVE 1: MAKE THE ORGANIZATION MORE EFFECTIVE WITH STRONGER LEADERSHIP, INCREASED COMMITMENT OF INDIVIDUAL WORKERS TO FULFILL ORGANIZATION-WIDE GOALS, AND A BETTER PREPARED, BETTER TRAINED, DIVERSE WORKFORCE

ATS will use quality of worklife indicators, such as the Accountability Board, EEO processes, and the Employee Attitude Survey (EAS), to assess the work environment and develop actions that result in improvement. This effort will maintain a work environment that promotes increased productive work in a safe and comfortable atmosphere.

All of the Initiatives under this Objective are FAA-wide in nature. Although ATS has active efforts in many of these Initiative areas specific to its Line of Business (e.g., an Ombudsman Program for conflict management), ATS will follow the corporate lead for these initiatives, with some exceptions as noted under the individual Initiatives, particularly in the area of human capital planning and related initiatives. ATS is an active participant

### FY04 PERFORMANCE TARGETS

- Increase Employee Attitude Survey scores in the areas of management effectiveness and Accountability by at least 3%.

**Note** - ATS will utilize guidance issued by AHR to develop support activities for the following initiatives: (1), (2), (3), (4), (5), (6), (7), (8), and (9). ATS will follow the corporate lead for these initiatives with some additional activities for initiative (7). These activities are listed in detail below.

#### Flight Plan Initiative 1. (ATS Supports)

Undertake and sustain agency human capital planning and measurement processes.

#### ATS Activity

- A. Revise the ATS Human Capital Plan to reflect performance goals in the ATS Business Plan and identify actions to be taken to remedy staffing and training issues identified for the critical occupations

in ATS (Air Traffic Controllers en route and terminal and Flight Service, Airway Transportation Systems Specialists, Engineers, Computer Specialists). Link objectives and initiatives in the ATS 2004 Business Plan to the ATS Human Capital Plan and the budgetary implications.

#### Performance Target:

- *Complete analysis of automation functions in ATS and develop an implementation plan to reflect any necessary changes in organizational alignment, skills, knowledge, and abilities, and determine appropriate job category, classification, and pay levels for all employees tasked with the automation workload (primarily 334 Computer Specialists). Data collection to begin in Q2 FY2004.*
- *Complete job task analysis of Airway Transportation Systems Specialists, 2101, and forward findings and recommendations with proposed plan for implementation by Q3 FY2004.*
- *Develop plan for conduct of formal job task analysis of engineering occupations in ATS to commence in FY2005.*
- *Incorporate any necessary changes to anticipated attrition rates of air traffic controllers based on outcome of CAMI report on waiver of mandatory retirement rules. Revise Human Capital Plan accordingly to reflect revised attrition rates in the en route and terminal options for Air Traffic Controllers.*
- *Integrate the Air Traffic Training Plan and hiring goals for entry-level Air Traffic Controllers into the Human Capital Plan as soon as FY2004 allocations are determined. Airway Facilities training quota is also matched to hiring and placement of Airway Transportation Systems Specialists and FY2004 allotments and quota will be linked to the Human Capital Plan.*

## FLIGHT PLAN OBJECTIVE 2: CONTROL COSTS WHILE DELIVERING QUALITY CUSTOMER SERVICE

### FY04 PERFORMANCE TARGETS

- Secure 10% of the unfunded portion of the strategic plan through budget requests, reprioritization, and cost savings.

**Note** - ATS will utilize guidance issued by AHR to develop support activities for the following initiatives (3) and (4). The remaining initiatives, where ATS has identified activities, are listed below.

#### Flight Plan Initiative 1. (ATS Leads)

Implement the FAA Telecommunications Infrastructure (FTI) program and provide cost savings over existing systems.

##### ATS Activity

ATS will aggressively manage the FTI and Invoice Financial Management System (IFMS) contracts to meet the program implementation and cost tracking/management goals. The following activities will support this initiative:

- A. Implement the first phase of service installations and cutovers.
- B. Complete the establishment of an IFMS capability to support FTI cost management.
- C. Establish the FTI Network Management and Operations Hub at Melbourne in support of network utilization.
- D. Development of a cost allocation strategy for future business units.

##### Performance Target:

- Establish the FTI Network Operations Center (NOC) by the end of Q2 FY2004.
- Establish and use IFMS processes for invoice validation and financial reporting.
- Have the IFMS business process established
- Complete installation at all planned Phase One facilities
- Begin service cutovers by the end of Q2 FY2004

#### Flight Plan Initiative 2. (ATS)

Lead FAA in the development of interagency and homeland security policy and initiatives relating to the

use of FAA surveillance systems. (Not in Flight Plan; is this an ATS specific initiative?)

##### ATS Activity

*\*NO ACTIVITY LISTED*

##### Performance Target:

- Lead required mission analysis and requirements development activities.
- Support development of annual F&E and R&D budget submissions; lead functional workgroups on behalf of operational users.

#### Flight Plan Initiative 3. (ATS)

Close out Occupational Workmen's Compensation Program cases. (Not in Flight Plan; is this an ATS specific initiative?)

##### ATS Activity

- A. ATS program is focused on cost containment, educating supervisors and support personnel on appropriate documentation to dispute inappropriate claims, tracking total costs of OWCP program, and returning employees to work as quickly as possible.

##### Performance Target:

- AAF will complete job placement offers to all eligible OWCP candidates in the Southern Region and at least two additional regions.
- {Need additional bullets for Performance targets}
- Conduct periodic evaluations of the OWCP.

## FLIGHT PLAN OBJECTIVE 3: MAKE DECISIONS BASED ON RELIABLE DATA TO IMPROVE OUR OVERALL PERFORMANCE AND CUSTOMER SATISFACTION

### FY04 PERFORMANCE TARGETS

- Achieve 80% of the designated milestones and maintain 80% of critical program costs within 10% of the total as published in the CIP
- Increase customer satisfaction scores on the American Customer Satisfaction Index to 63.

#### Flight Plan Initiative 1. (ATS Supports)

Provide tools and training to all current executives and managers on using cost data (for example, CAS and LDR information) to make management decisions and reinforce the use of these skills as part of the agency-wide cost control program.

##### ATS Activity

- A. Conduct CAS training for all headquarters executives and managers (down to Division Manager level) and for all regional managers (down to Regional Branch Managers).

*Performance Target: 100% of training completed by the end of Q3 FY2004.*

- B. Develop and implement an ATO Strategic Management Process (SMP) with the ATO Executive Council. SMP will develop the following products in FY 2004:

- Develop ATO Strategy Map by Q3 FY2004
- Identify performance measures and establish FY05 & FY06 performance targets by Q3 FY2004
- Identify and prioritize initiatives, staffing, and resources aligned to performance targets by Q4 FY2004
- Establish strategic management reports and monthly review process by Q4 FY2004
- Develop FY05 Rollout plan from Corporate to VP's Q4 FY2004

*Performance Target: 80% completion of all milestones by end of Q4 FY2004*

#### Flight Plan Initiative 2. (ATS Supports)

Develop a process to measure customer satisfaction for a wider range of customer segments.

##### ATS Activity

- A. This effort will utilize accepted survey practices to assess the level of customer satisfaction for users of FAA services.

*Performance Target: Implement survey of NAS users, pending approval from OMB, in FY2004.*

#### Flight Plan Initiative 3. (ATS Supports)

Update and implement an agency security plan to protect our information assets.

##### ATS Activity

ATS will enhance the usefulness of the Information Systems Security Directive and improve personnel, physical and ISS security data to managers. Increase availability of security information and awareness to ATS personnel. The following are ATS activities that will be executed to support this initiative:

- A. Continue Certification and authorization services for ATS Information Systems
- B. Provide information system security awareness and training
- C. Proactively engage in cooperative mitigation concepts and efforts to prevent future information system security breaches.

##### Performance Target:

- Provide Security Awareness for 3,000 ATS personnel.
- Release 3 SOPs to support the Information System Security Directive.
- Complete 10 Level 1 Security Certification and Authorization Processes on AOP Systems